

## PERSUASIVE TECHNOLOGY IN EDUCATION CONTEXT

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### ABSTRACT

*The purpose of this paper is to investigate the use of Persuasive Technology (PT) within the realm of educational settings. However, persuasion has been used in education for a long time to support teaching and foster the development of skills as well as learning. In today's world, computers are used for more than simply making our lives easier, as in areas like office work and education; they are also used to persuade and encourage people to change the way they feel or act about certain issues. PTs may be used as learning aids in the fields of Social Assistance, Health, Environment, Research and Development, Education, and Advertising, operating directly or indirectly. This study identifies and incorporates this field of knowledge, beginning with the identification of the most important publications that link the use of PTs in educational settings.*

**Keywords:** *Persuasive Technology, Social Assistance, Health, Environment, Research & Development.*

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### Introduction

In today's electronic-visual age, youngsters are considerably more interested in surfing the Internet, playing computer games, and watching television than they are in reading a decent book. Books, as a communicative, instructive, and amusing experience, cannot be compared to the enticing experience provided by modern technology, which catches their senses via visual and auditory stimulation and has become an integral part of their daily lives.

In the 1970s, the first Persuasive Technology (PT) was developed; at the time, it was referred to as an interactive computer system that was used to modify people's behaviours Sam Devincenzi et al. (2017). The use of this "innovative" technology in the educational setting paves the way for the creation of new learning possibilities. In order to properly incorporate persuasive technology as a new tool in the classroom, it is essential for instructors to analyse how it links to pre-existing educational paradigms and how it may provide something unique to instructors. Research has shown that these technologies are viable in a range of settings, including but not limited to health, marketing, sustainable development, promoting positive behaviour, Research and Development and teaching-learning.

In the modern era, computer technologies are not meant just to assist humans in doing daily chores such as administrative labour or classroom instruction but also to convince and urge individuals to alter their attitudes or behaviour toward topics or things. This sort of computer technology, known as persuasive technology, is characterized as "a technology intended to modify attitudes or behaviour via persuasion and social influence, but not coercion" (B. J. Fogg, 2003).

### Persuasion in Education

The educational process is a connection between human beings, and it is permeated by a set of values, cultural structures, social customs, traditions and practices that are part of each topic that is engaged in this process.

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The environment of the school, the traditions it upholds, the content of the curriculum, and the instructional strategies that are used to teach this content are all very persuasive. Children with different types of backgrounds are being persuaded to believe that they are capable of learning and that they do have a chance at a better life by attending schools with rigorous academic requirements. Students are persuaded that lifelong learning is not only possible but also desirable and that excellence is something that should be taken seriously when they attend schools in which teachers and administrators frequently visit and teach in the classrooms of one another and provide constructive criticism and improvement challenges to one another.

According to B.J Fogg(2003), PTs may be used to push individuals to learn new information or abilities and can be employed either in a classroom setting or in an external context. In addition, PTs are able to stimulate people to begin a specific process of learning, and tasks, review when required information, and continue the particular activity that they are engaged in. In this approach, systems may be designed to help in the process of learning, offering teaching opportunities to individuals at any time and in any location.

### **Persuasive Technology in Teaching and Learning**

We are now living in a technological period, which is characterised by the constant discussion of technical processes and equipment, including cellular phones, computers, software, and the internet. All of these modern transformations may be seen as interactions with different types of knowledge. Incorporating persuasive technology into the classroom creates new educational possibilities.

B.J. Fogg (2003) says that people can be motivated to learn new things at school or in the real world by using PTs. It can be used to drive individuals to start a given process of learning or tasks or to achieve the desired behaviour. If instructors confronting persuasive technology as a new tool in the classroom are to properly incorporate it, it is necessary for them to analyse how it connects to current educational paradigms and whether or not it offers something novel to learners. According to Alexander et al. (2002), the primary feature that distinguishes "persuasion" from other types of communication is a focus placed on the trustworthiness of the speaker. When persuasion is employed as a model in teaching, individual student beliefs and interest in a certain subject or text are crucial elements in deciding whether or not learning takes place, according to Murphy (2001), who makes a similar argument. Murphy cites the model of persuasion developed by Petty and Cacioppo (1986), in which the authors claim that emotive and motivational elements are, in fact, crucial in determining the level of learning achieved. Once more, Murphy emphasises the importance of affective aspects in persuasion as teaching, giving the example of how teaching about AIDS would be more effective if the teacher gave a personal account of a friend's experience of the disease rather than giving the students charts and tables of statistical data.

Alexander et al. (2002) examine the concept of persuasion in light of sociocultural and Vygotskian perspectives in the learning process. In spite of the fact that they do not identify any genuine issues of contention, they do recognise a difference in the focus. They argue that sociocultural methods, with their focus on the social process of learning, do not give sufficient weight to the quality (i.e. credibility) of the texts, evidence, or instruments that are used in the process of teaching and learning. In addition, they contend that the Vygotskian theory's focus on group social processes in learning minimises the significance of an individual's emotional and cognitive preferences in the decision-making process that determines the result of the learning process. Additionally, credibility is essential in situations in which technology plays the function of being the persuader, and the cultivation of credibility must be included in the overarching instructional plan. Credibility refers to the capacity to influence others, which is not something that technology has by its own nature.

### **Technologies Involved in the Process of Persuasion**

*In this review, various technologies are identified that were involved in the process of persuasion in order to reach the desired behaviour:*

- EuroPlot (Behringer et al.,2013),
- Computer-based Learning (CBL), Gharbaghi (2013)
- Mobile Applications (Matthews et al.,2016),
- Blended Learning (Engelbertink et al., 2020),
- Video Games (Cho et al.,2017),
- Virtual Reality (Chittaro et al., 2010) (Cho et al.,2017),
- Web 2.0 (Widyasari, 2019),

## Conclusion

The burgeoning field of persuasive technology provides an opportunity to evaluate the extent to which an emphasis on persuasion and persuasive design has the potential to be useful in educational environments for the purpose of bringing about changes in students' behaviours. Persuasive technology can be used for behaviour modification that can foster empowerment and open new opportunities to learners. In a culture of learning that employs technology, the process of behaviour modification is impacted by the technology's use by its users. (Batsila, et al., 2015). As we observe the impact of technologies as a motivational agent of learning processes, we find that the majority of investigations focus on the motivation associated with the activity, that is, how motivated one is to acquire new knowledge or skills, the resolution of problems associated with study habits, the initiation of a particular process of learning, tasks, review materials when needed, as well as continue a certain activity, being able to act in the formal or informal learning setting. However, it is dubious about using principles of persuasion to limit a person's freedom of choice while being aware that the person being influenced is oblivious to the influence being exerted on them.

People's behaviours are influenced to some extent by technological advances. The challenge is to build technology that can be accepted by users, and that also modifies their behaviour in a way that is beneficial. How can this be accomplished? The acceptance of the technology by its users is highly significant since the technology that is going to be built is not only going to be utilized by users, but it is also going to influence people's attitudes and behaviours in the direction of some acknowledged aim. There are some concerns about the user adoption of technology since altering behaviour via the use of technology could confront various ethical difficulties, including the privacy of sharing user personal data. These issues are widespread. Persuasion can be good or bad, depending on whether it is used to empower and educate people or to manipulate people for harmful and bigoted goals.

In order to contribute to higher levels of academic accomplishment among students, one of our primary missions is to integrate the core concepts of persuasive principles into the classroom setting. In addition, it is our aim that the incorporation of principles of persuasion into the framework of education would open up new doors for educational possibilities pertaining to the methods that may alter people's behaviour.

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